

IMPLEMENTATION TEAM MEETING NOTES

April 5, 2001, 9:00 a.m.-4 p.m.

NATIONAL MARINE FISHERIES SERVICE OFFICES PORTLAND, OREGON

I. Greetings, Introductions and Review of the Agenda.

The April 5, 2001 meeting of the Implementation Team, held at the National Marine Fisheries Service's offices in Portland, Oregon, was chaired by Jim Ruff of NMFS and facilitated by Donna Silverberg. The agenda for the March 1 meeting and a list of attendees are attached as Enclosures A and B.

The following is a distillation (not a verbatim transcript) of items discussed at the meeting, together with actions taken on those items. Please note that some enclosures referenced in the body of the text may be too lengthy to attach; all enclosures referenced are available upon request from NMFS's Kathy Ceballos at 503/230-5420 or via email at kathy.ceballos@noaa.gov.

Silverberg welcomed everyone to the meeting, led a round of introductions and a review of the agenda.

2. Updates.

A. In-Season Management. Cathy Hlebechuk reported that the joint IT/TMT meetings ended on March 14; additional TMT meetings were held on March 21 and April 4. The IT and TMT worked to refine the matrix of 2001 operating priorities and the federal principals; these were provided to the Federal Executives in late March. The TMT is assisting in the development of a 2001 river operations plan to be submitted to the Federal Executives at their April 13 meeting. We're also working on the more detailed 2001 Water Management Plan, Hlebechuk said.

With respect to current river operations, Hlebechuk said the headwater storage projects are releasing minimum outflow to allow them to fill as full as possible by June 30; the action agencies are releasing the minimum possible flow from Grand Coulee to meet power needs and the Vernita Bar minimum. The April early-bird forecast predicts a January-July runoff volume of 55.7 MAF at the Dalles, 53% of normal. Current Snake River flows at Lower Granite are about 40 Kcfs; at McNary, 110 Kcfs-115 Kcfs; at Bonneville, 130 Kcfs. As of midnight last night, Grand Coulee was at elevation 1223; Libby was at elevation 2387, while Dworshak was at elevation 1514.

At yesterday's TMT meeting, we discussed Albeni Falls refill operations, Hlebechuk continued; the Corps' legal staff is looking into the stipulation agreement to figure out our responsibility for refill this spring. We will be presenting a proposal on Albeni Falls refill at the April 11 TMT meeting, she said. In response to a question, Hlebechuk said the probability that Dworshak will fill to elevation 1580 by June 30 is currently about 85%.

B. Independent Scientific Advisory Board (ISAB). No ISAB report was presented at today's meeting.

C. Water Quality Team (WQT). No WQT update was presented at today's meeting.

D. System Configuration Team (SCT). No SCT update was presented at today's meeting.

E. TMDL Update. Mary Lou Soscia reported that EPA is taking the lead on the temperature portion of the Columbia/Snake mainstem TMDL; the states are taking the lead on the gas portion of the TMDL. We now have a draft temperature workplan, said Soscia; there are also some workshops coming up that people might be interested in attending. We plan to have a draft temperature TMDL available for review by February 2002, with the goal of producing a final temperature TMDL in August 2002, she said.

In June and July 2001, EPA plans to hold a public workshop to present our 1-dimensional model, plus the allocations, and obtain feedback from stakeholders in the region. In August, we will have a workshop on problem assessment and numerical targets, she said. In October, we will have a public workshop on loading and allocation. The workshops will also cover key decisions and issues associated with the gas workplan, Soscia added. EPA, the states and tribes are continuing to meet on a monthly basis; if anyone is interested in attending those meetings, they are welcome to do so. Soscia noted that in May, a group will travel to Washington D.C. to brief the Congressional delegation on the TMDL; individual briefings will also be scheduled with the tribes.

3. Power Outlook for the Next Year and Possible Impacts for Winter 2001 Based on Strategies

Employed.

John Fazio of the Council staff gave the IT the same presentation the Council staff provided to the federal, state and tribal executives last Friday on the 2001-2002 power supply outlook and implications. He worked through a series of overheads, touching on the following subjects:

- A Stage 1 analysis, to look at the period March 1-August 31. The reservoirs started at March 1 elevations, so this analysis is probably a little optimistic, since the forecast has worsened. Council staff used the 60-MAF 1944 water year and the 54 MAF 1977 water year to run a monthly energy analysis to see whether or not it will be possible to meet Northwest energy demand.
- Stage 1 Operational strategies – the analysts looked at several scenarios, ranging from normal BiOp spill and flows to no spill at any project (“Red 5”) with several limited spill and flow scenarios in between.
- Energy available from spill – obviously, if the bypass spill flows are run through the turbines, said Fazio, more energy will be available; up to 2,500 MW-months during the months of May and June, and 1,500 MW-months average over the entire spill season.
- The current January-July runoff forecast at The Dalles is 55.7 MAF, the second-lowest on record. That assumes normal precipitation from here on out; if precipitation is only 75% of normal between now and August 31, 2001 runoff will only be 52 MAF, the lowest on record.
- Results: assuming 1944 water supply, under the BiOp spill and flow operation, the Council’s analysis predicts a curtailment of 5,606 MW-months; replacing that energy would cost an estimated \$1 billion. Under the emergency + Red 5 operation (no spill at any project), there would be no curtailments and reservoirs would end August at 99.9% of the elevation levels called for in the BiOp. Under the Emergency + Red 4 operation, there would be an estimated curtailment of only 177 MW-months, which could be replaced at a cost of only \$32 million. Under this scenario, some spill could occur; there would also be 3,422 MW-months of retained energy, which could be used for refill or mitigation. Under this scenario, the storage reservoirs would be at 99.3% of BiOp levels on August 31.
- Under 1944 water conditions, there are expected to be approximately 11,000 MW-months of potential spill energy if no spill is provided from the 2001 runoff; the region needs about 5,600 MW-months to alleviate expected regional curtailment.. The remainder is “extra” water that could be used either for spill or retained storage.
- Assuming 1977 water supply, under the BiOp operation, the Council estimates a

curtailment of 7,993 MW-months; and that it would cost \$1.44 billion to replace them. Under the Emergency + Red 5 scenario, the curtailment drops to 89 MW-months, estimated replacement cost \$16 million. Under the Emergency + Red 4 scenario, there would be a curtailment of 1,289 MW-months, replacement cost \$232 million; the reservoirs would end August at 98.6% of BiOp levels. Under the latter scenario, there would be only 432 MW-months of retained energy; under the Emergency + Red 5 scenario, there would be 1,652 MW-months of retained energy.

- Fazio also provided information on the impacts of the various operational scenarios analyzed on river flows; in general, spring flows would change little under all but the “maximum emergency” scenario, but would be as much as 20% below BiOp targets during the summer period at Lower Granite.

The bottom line is that the Council’s conclusions are very similar to Bonneville’s, said Fazio – if we get 1977-type water, we will essentially have to curtail all spill just to get by. If we get a 53-MAF runoff, added Therese Lamb, we won’t get by, even with zero spill – we will either have to draft reservoirs deeper, or purchase energy.

In reply to a question from Jim Ruff, Dick Nason said Chelan PUD has just reached agreement with the Mid-Columbia Coordinating Committee to spill 20% at Rock Island this spring.

Will the Council be updating this analysis next week? Ruff asked. Yes -- we’ll update the load forecasts, Canadian operations and TSRs, Fazio replied.

With that, Fazio moved on to the Council’s Stage 2 analysis, covering the period of September 2001 through April 2002. The analysis looked at three basic scenarios: project elevations of 72% and 79% of BiOp levels on August 31, and project elevations at normal BiOp levels on August 31. The Council ran a Monte Carlo analysis, 300 “games” with a random selection of water conditions, temperatures and forced outages. The analysis used the driest two-thirds of historic water conditions, and assumed limited imports. Basically, the analysis looked at two factors: system reliability, and April reservoir elevations. In terms of results, said Fazio,

- Reliability: Under the BiOp reservoir elevation scenario, the probability of curtailment is 20%; the average curtailment is 536 MW/months, and the maximum curtailment is 3,000 MW/months. Under the 79% of BiOp reservoir elevation scenario, the probability of curtailment rises to 39%; the average curtailment is 809 MW-months, and the maximum curtailment is 5,100 MW-months. Under the 72% of BiOp reservoir elevation scenario, the probability of curtailment rises to 45%; the average curtailment is 892 MW/months, while the maximum estimated curtailment is 5,700 MW-months. Fazio noted that the 79% and 72% of BiOp reservoir elevation scenarios are based on where reservoirs are expected to be under the maximum emergency draft+ BiOp spill levels scenario (Scenario 1) assuming 1944 and 1977 water supplies, respectively.

- Even at a 20% curtailment probability, said Fazio, the risk is unacceptably high – the industry standard is a 5% probability of curtailment. In response to a question, Fazio said “curtailment” essentially means “rolling blackouts.”
- Again, said Fazio, this assumes that the dry weather conditions will continue into next year; in other words, it is a pessimistic assessment. Even so, he said, this analysis points out what the Council has been saying for two years – the Northwest power system is inadequate, and the load/resource ratio is out of balance.
- Starting September with reservoirs below their BiOp levels will likely translate into reservoir elevations that are lower than their BiOp levels next April, Fazio said; if you assume the lowest two-thirds of water years, we would have between 2 MAF and 6 MAF (under the worst-case scenario) less water available for flow augmentation next spring.

Does this study say, in essence, that we’re looking at no spill in 2002 as well? Howard Schaller asked. Not necessarily, Lamb replied. What it tells me is that we have to be very careful about our reservoir levels on August 31, said Jim Litchfield – if we can keep them up to the BiOp levels, we’ll be in a lot better shape for next year. However, if there is an energy crisis in California this summer, all of this could be out the window, Jim Nielsen observed. Perhaps, said Lamb – the Clinton administration, at least, was sympathetic to the idea that we should not be forced to implement actions that will jeopardize our future power system reliability, even if California is in crisis.

Fazio noted that copies of his overheads are available from the NWPPC website.

Lamb said the next step in this analysis is to explore the possibility of storing additional water above BiOp levels; we need to get a sense of how sensitive the analysis is to that variable, she said. Fazio added that there is also the possibility of two-for-one energy exchanges with California, to be returned next winter, which would help improve the reservoir elevation outlook for next spring.

Fazio noted that, even if the storage reservoirs start September at their normal BiOp levels, if the dry weather continues and the region receives, say, 1930 water supply (70 MAF at The Dalles), we would have a January shortfall of 3,200 MW-months. On the other hand, even if we start September with reservoirs only 72% as full as their BiOp levels, if we get above-average water supply during the winter and spring, we could be fine, Fazio said. We don’t know what’s going to happen, said Fazio – it’s a risk assessment, but given recent weather patterns, it probably makes sense to plan for the worst and hope for the best.

The bottom line, said Fazio, is that even if we begin September with reservoirs at their BiOp levels, the power system is inadequate to meet Northwest loads. If we begin September with reservoirs below their BiOp elevations, the situation is proportionately worse, and we’re

looking at a high probability of curtailments this winter.

The group discussed what can be done about this situation; there was general agreement that it will be 18 months to two years before substantial new generating resources will come on-line. Litchfield observed that the quickest solution to this problem is curtailment; however, he said; that requires profound behavior change, which probably won't come about until electricity prices rise substantially.

Fazio added one incidental piece of information: that if the spill program is eliminated in 2001, it has been estimated that the additional energy generated would reduce energy prices by \$56 per MW - hour.

Conclusions? Silverberg asked. She wrote the following on the white board:

- Have to be very careful with August 31 reservoir elevations
- Can *not* draft below BiOp reservoir levels
- Begs the question: should we be storing above BiOp reservoir levels?

Would the purpose of the latter operation be for power, or for fish? John Palensky asked. It would be primarily for power system reliability, Lamb replied, but it could have secondary fish benefits. Let's be careful, said Howard Schaller – it might have fish benefits next year, but it will be a detriment to fish this year. At Schaller's request, Silverberg wrote the following item on the board:

- Fish are screwed in 2001.

Fazio noted that the Council has released a memo, recommending that zero spill occur in 2001, unless weather and water supply conditions improve significantly. The Council has agreed to reconsider this recommendation as conditions change through the season. In response to a question from Dennis Rohr, Lamb said a recent BPA analysis shows that the listed Upper and Mid-Columbia salmon stocks are expected to experience a 12% drop in survival if zero spill is provided in 2001; Hanford Reach chinook would also experience a significant decrease in juvenile survival. The Snake River stocks would likely be impacted less, because a higher proportion of those fish are transported. However, the bottom line is that the fish that migrate in-river in 2001 are going to get hammered, Schaller said.

Other lessons learned? Silverberg asked. That this isn't just a 2001 problem, and the problem may not end in 2002, Jim Nielsen replied – we really need to think long-term about this problem. Another point, said Jim Fodrea – can we even get to BiOp elevation levels on August 31, and if so, what steps -- buying power, curtailing irrigation -- will we need to take to get there?

Is there advice this group can offer TMT, in terms of the operational decisions that will have to be made this year? Silverberg asked. One thing we need to do is explicitly describe 2001

tradeoffs, as opposed to 2002 tradeoffs, said Tony Nigro. We need to be aware of, and seek agreement on, what the risks actually are.

The other question I have has to do with the fact that the Regional Forum exists to implement the Biological Opinion, said Nielsen – given the fact that, this year, we’re explicitly *not* implementing the BiOp, what is our role? Palensky made the point that the term “BiOp reservoir levels” is somewhat misleading, because the system is being operated to meet load, not to benefit fish. That’s a good point, said Lamb – the term “BiOp refill levels” is just a benchmark people are familiar with. In fact, said Ruff, refilling the system to BiOp levels on August 31 would be detrimental to fish, because it will require us to reduce river flows at a time when fish really need water in the system.

Ruff observed that one major problem is the fact that, to benefit the species NMFS is most concerned about – Mid-Columbia and Upper Columbia spring chinook – spill would need to occur in May. The problem is, in May, it will be too soon to know exactly how much water the system will have to work with this year. By August, when the actual amount of available water will be known, it will be too late to spill for these fish, and the only thing to do will be to save the water.

There was general agreement that it would be useful to develop some sort of more formal risk assessment, estimating the biological consequences associated with the various operational scenarios under consideration by the federal executives.

4. Discussion of Federal “Operating Principals.”

Ruff distributed Enclosure C, the most recent draft of the “Federal Agencies Criteria and Priorities for 2001 FCRPS Operations,” dated March 30. Lamb noted that this document has been modified in response to comments received from IT, TMT and other parties. She went briefly through these changes, describing both what was and what was not changed in response to comments received, as well as the reasons the requested changes were and, in some cases, were not made. The current federal operations priorities for the January-August 2001 period include:

- a. Power/chum flows through a minimum of 65% emergence (already completed)
- b. Full fish transportation in the Snake River
- c. Transport evaluation from McNary Dam in the spring
- d. Balance spring spill operations for ESA listed stocks (wild and hatchery) at mainstem FCRPS dams with uncertainty associated with volume forecast error.

Allocate any spill available with the following project priority:

- i) The Dalles (with a consistent operation for study purposes)

- ii) Bonneville
- iii) John Day
- iv) McNary
- v) Ice Harbor

- e. Lower Granite surging operation targeted to move fish through pool to Lower Granite
- f. Balance summer flow augmentation (June 30 refill) and spring spill operations
 - i) refill of Dworshak has highest priority for providing fish flow and water quality benefits
 - ii) Ensure sufficient water in Hungry Horse and Libby to provide bull trout minimum flows
- g. Minimum operating pool on the Snake River and John Day within 1.5 feet of minimum level for irrigation pumping
- h. Balance Vernita Bar protection level and Grand Coulee elevation
 - Consider reducing protection flows if the reduced protection flows, combined with forecasts of BPA loads or streamflows below Grand Coulee provide a high confidence of benefit in Grand Coulee elevation
- i. Summer spill operations at mainstem FCRPS dams for ESA-listed stocks (wild and hatchery)
- j. Targeted spring spill for non-listed hatchery releases
- k. Targeted summer spill for non-listed hatchery releases
- l. Spring system flow augmentation, with emphasis on May
- m. Monitor and evaluate (with EPA technical assistance) and consider effects on water quality and any applicable water quality standards, in determining priorities
- n. Convene TMT to seek input on the timing of implementation and to provide greater definition to these priorities, with elevation to the Implementation Team or Regional Federal Executives, as necessary

In response to a question, Ruff said that, in terms of the relationship between this list and the TMT's 2001 Water Management Plan, these principals are intended to provide policy guidance – sideboards – to the TMT, which will then develop its more detailed operating plan with these principals in mind.

The group spent a few minutes discussing this list, offering a variety of comments and suggestions. Much of this discussion centered on the question of transportation from McNary;

Ruff distributed Enclosure D, a draft Biological Opinion NMFS has just developed which would allow McNary transportation in 2001. He noted that McNary transport will require a Section 10 permit; this BiOp has been prepared in support of that permit application. It is on a very fast track, said Ruff, so if you have any comments on the BiOp, get them to me as soon as possible. The exact transport operation to be implemented is still under discussion; this decision is complicated by the fact that a certain percentage of PIT-tagged Mid-Columbia fish have to be left in the river in order not to compromise the Mid-Columbia PUD inriver survival research. It's not as simple as full transport or no transport, said Ruff; there are some complicating factors. Under any transport operation, it is unlikely that we will be able to transport more than 50% of the fish from McNary, he added.

5. 2001 FCRPS Operating Priorities Alternatives Discussion.

Are there any changes – additions, deletions or changes in priority, for the above list? Silverberg asked. Nielsen replied that, in his opinion, there are still some questions about the proposed Lower Granite pulsing operation, primarily having to do with the stoppage in fish movement that will occur every time a “pulse” ends. It is not clear to me, he said, that there will be any net gain in fish passage, despite the fact that you may see short-term increases in passage during and immediately after the pulses. Washington is also unconvinced that using Dworshak to augment Lower Granite flows during the spring is a good idea, he added. Ruff replied that, while Dworshak augmentation is on the table this spring, NMFS' strong preference would be to augment Lower Granite flows from Brownlee.

Nigro said it would be helpful for him to have a few days to compare this list with Oregon's earlier comments; he asked that, rather than attempting to re-prioritize the list today, the IT should set a deadline for further comment. Ruff disagreed, noting that there has already been a comment period on this list; the revised list includes the federal agencies' response to those comments. We don't intend to revise this list again, he said. There may be a need to adapt or change this document during the season, said Jim Fodrea, but this isn't a draft – this is the final version of this list for now. He added that the action agencies will be providing a draft 2001 operations action plan to the Regional Executives at their April 13 meeting, and that there will be an opportunity for regional parties to comment on that plan.

The discussion then turned to the IT/TMT matrix of 2001 FCRPS Operating priorities; Ruff noted that he had modified this document to reflect both the Washington and Oregon plans and all other comments received on the previous matrix. This document is attached as Enclosure F.

6. Action Agencies' 1- and 5-Year Plan: Update and Schedule for Completion.

Dan Daley distributed Enclosure F, the most recent draft timeline for the 2001 BiOp Implementation Plan development schedule. He noted first that the draft five-year plan will be given to NMFS and the Fish and Wildlife Service for review and comment tomorrow; the

schedule would then be to release the draft five-year plan for regional comment on May 4. In response to a request, Daley said he will see if it might be possible to release the plan, or at least make a presentation on it, at the May 3 IT meeting.

Just so we're clear, this is not the annual plan, Daley said – it is the five-year plan, laying out the structure, framework and rationale of the implementation plans for each of the four Hs. The draft annual plan for 2002 will then be released in late May. Bear in mind also that this is a work in progress; it's the first time we've done this, and there are bound to be some bumps in the road, Daley said.

The discussion turned to funding sources for the Reasonable and Prudent Actions (RPAs) called for in the Biological Opinion; Daley replied that the funding discussions are still ongoing, complicated by the financial challenges imposed by the 2001 water year.

Daley added that BPA plans to brief states, tribes and other key regional stakeholders directly on the draft five-year plan next month. In response to a question, Daley said that, during the independent scientific review, the action agencies will be asking the ISAB to review the appropriateness of the projects the action agencies have chosen to meet the recovery goals NMFS has laid out in the BiOp, rather than the scientific rationale behind the BiOp itself. In response to another question, Daley said discussions are still ongoing between the action agencies and the Northwest Power Planning Council about how to coordinate the BiOp implementation planning process into the Council's three-year rolling review process.

My concern, said Palensky, and the reason I raise this question, is that the Council has just completed its review of the Columbia Gorge province; there will now be no opportunity to fund additional projects in the Columbia Gorge through the Council's funding process until three years have passed. What about projects the action agencies are required to implement under the ESA, but which were not identified in the Columbia Gorge provincial review? Palensky asked. That is a question we're continuing to explore with the Council; the answer, at this point, is not clear.

In response to a question from Rohr, Daley attempted to explain the rationale behind the Council's three-year rolling review process; Silverberg observed that this discussion is an illustration of why it would be helpful to have a Council representative attend the IT meetings on a regular basis. We have been trying to get them to send a representative for months now, she said, so far, without success.

Daley noted that one difficult thing BPA is wrestling with is the idea of restoring populations to places like Duncan Creek; the problem is, what happens if we accomplish that, then the population crashes? Will NMFS ding us for that? If so, there isn't much incentive to do that kind of work, from a policy perspective, Daley said. That's not a problem, said Schaller – there are RPAs that say you will do offsite mitigation, so you really don't have a choice.

7. Next IT Meeting Date.

The next Meeting of the Implementation Team was set for Thursday, May 3, from 9 a.m. to 4 p.m. Meeting notes prepared by Jeff Kuechle, BPA contractor.